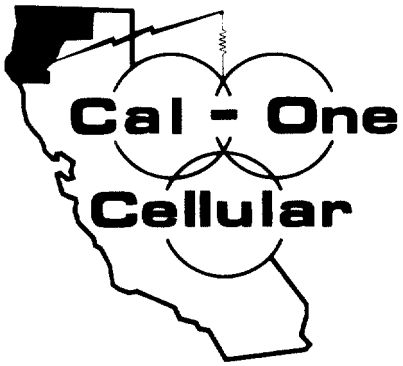
DOCKET FILE COPY ORIGINAL



Cal - One Cellular L.P.

A California Limited Partnership
Serving California RSA - 1 Block B

11918 Main Street • P.O. Box 627
Fort Jones, California 96032-0627
Phone (916) 468-5222
Fax (916) 468-5402

October 28, 2000

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Dear Ms. Salas:

I have enclosed an original and five (5) copies of the "Report on Implementation of Wireless E911 Phase II Automatic Location Identification" as required by CC Docket No. 94-102 for Cal-One Cellular L.P. (TRS No. 801027). I have also enclosed one diskette containing the same report.

Please return the stamp copy in the enclosed self-addressed stamped envelope. If there are any questions, I can be reached at 530-467-6171. Thank you for your assistance.

Sincerely,

Jim Lowers

Jim Lowers
VP/Controller
Cal-One Cellular
P.O. Box 157
Etna, CA 96027

Enclosure

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:	)	RECEIVED
	)	
CC Docket No. 94-102	)	Cal-One Cellular L.P NOV 6 2000
Report on Implementation of	)	TRS No. 801027
Wireless E911 Phase II	)	FCC MAIL ROOM
Automatic Location Identification	)	

REPORT ON IMPLEMENTATION OF WIRELESS E911 PHASE II ANI

Background/Contact Information

1. Carrier Identifying Information:

Carrier Name: Cal-One Cellular L.P.
Carrier TRS No.: 801027

Cal-One Cellular L.P. is a facilities-based wireless carrier serving California's RSA 1 by means of the B-side cellular spectrum. California RSA 1 consists of four counties located in the extreme northwest corner of California: Del Norte, Humboldt, Siskiyou and Trinity.

2. Contact Information:

Author of report: Jim Lowers, VP/Controller
Cal-One Cellular L.P.
P.O. Box 157
Etna, CA 96027
Phone No. 530-467-6171
Fax No. 530-467-6401
e-mail jtlowers@sisqtel.net

General Manager: Veanne Freckman
Cal-One Cellular L.P.
118 Ranch Lane
Yreka, CA 96097
Phone No. 530-842-1863
Fax No. 530-842-5880
e-mail veanne@sisqtel.net

Chief
Technician: Tim Edwards
Cal-One Cellular L.P.
118 Ranch Lane
Yreka, CA 96097
Phone No. 530-842-1863
Fax No. 530-842-5880
email time@sisqtel.net

E911 Phase II Location Technology Information

1. Type of Technology:

Cal-One's service territory consists of two systems: the I-5 system and the coast system. Each of these systems serves two counties. Both of these systems will use the same technology.

Cal-One has chosen to implement the handset-only solution. This system is known as the Assisted Global Positioning Satellite (AGPS) system.

Several vendors have teamed up to develop this solution. SnapTrack, a wholly owned subsidiary of Qualcomm, developed the GPS-enabled software algorithm and chipset. SnapTrack has licensed this technology to most of the major switch and handset vendors.

Cal-One uses two Motorola EMS-5000 switches in its network. Motorola will connect these switches to SignalSoft's Mobile Position Center (MPC), a computer-based device much like Motorola's Home Location Register. The MPC is the device that acts as the hub of the system and inserts the location of the handset into the data stream being forwarded to the PSAP when the customer dials 911+send.

The system also requires a Lucent AGPS Position Determining Equipment (AGPSPDE) unit. This unit houses a Sun workstation and the SnapTrack software. The AGPSPDE communicates with the handset only when the handset dials 911+send. The AGPSPDE instructs the handset to take a snapshot of all the GPS satellite readings it can find. The AGPSPDE then calculates the location of the handset and passes it on to the Mobile Position Center for transmission to the PSAP. This process takes about 2 seconds.

2. Testing and Verification:

Since none of the equipment is available to implement this solution, no testing has been performed to date. Once equipment becomes available, the following tests will be performed:

a. 911 calls will be initiated from various locations throughout Cal-One's service territory. The latitude and longitude that the system calculates will be recorded for each call.

b. The exact location of each point of call origination above will be determined and recorded using our Trimble GPS surveying equipment. This equipment has sub-meter accuracy.

c. The results of the AGPS system and the Trimble GPS system will be compared, and statistics will be developed to determine system accuracy.

d. The above steps will be performed with every type of GPS-enabled handset we sell to verify that the handset/AGPS combination produces results of sufficient accuracy.

3. Implementation Details and Schedule:

Both hardware and software changes will be necessary to implement the handset-based location solution. Motorola will be responsible for arranging installation, testing and training for this equipment. The following action items must occur:

a. The SignalSoft Mobile Position Center equipment will be installed and tested.

b. The SignalSoft Mobile Position Center software will be installed and tested.

c. The Lucent AGPSPDE equipment will be installed and tested.

d. The SnapTrack software will be loaded onto the AGPSPDE and tested.

e. GPS-enabled handsets will be purchased and tested.

f. The entire system will be tested to see if everything works together as designed and produces results of sufficient accuracy.

g. The production-ready system will be tested with the California Highway Patrol PSAPs to be sure the PSAPs are getting the information they require in a format they can use.

Installation and testing of all systems should take no more than 180 days once all software and equipment becomes available.

GPS-capable handsets are scheduled to become available in the second quarter of 2001. Samsung and Qualcomm are the vendors expected to have handsets available soonest. This will allow us to begin selling GPS handsets in compliance with the FCC's rollout schedule.

The Lucent AGPSPDE is not expected to ship until the first quarter of 2002. The SignalSoft MPC is not expected to ship until the end of 2002. This will require an extension of the implementation deadline. The California Department of General Services 911 division recently sent all California wireless carriers a Request For Information asking about our 911 Phase II deployment plans, and we indicated the need for an extension in that document.

4. PSAP Interface:

The SignalSoft MPC hardware and software must be installed to allow us to transmit Phase II data to the PSAP. Cal-One's strategy for installing and testing this hardware and software is described in 3. above.

Both of our PSAPs are owned and operated by the California Highway Patrol (CHP). The CHP operates these PSAPs in accordance with standards set forth by the California Department of General Services (DGS) via its 911 division. To this date, our PSAPs have not asked us to implement Phase I 911 service, much less Phase II. We do not know if CHP will have Phase II-capable PSAP equipment in time to meet the FCC deadline or not.

5. Existing Handsets:

Cal-One plans to begin selling GPS-capable handsets as soon as they become available. If possible, we will improve on the FCC's handset rollout schedule. As soon as GPS-capable handsets are available for all of our customers' needs (such as dual-mode analog/digital, 3 watt vehicle-installed), we plan to offer only GPS-capable handsets.

Eventually we may have to subsidize the upgrade of the remaining analog handsets. We have asked California DGS if they would be willing to assist financially in this effort.

6. Location of Non-Compatible Handsets:

We are only aware of two possibilities when it comes to locating non-compatible handsets:

a. Phase I technology can be used to at least narrow the handset's location down to one individual cell site, and possibly one sector within a cell site.

b. Motorola claims our AGPS technology has a capability called "AFLP". This is some type of backup triangulation capability that is not capable of network-based triangulation accuracy, but is nevertheless capable of better accuracy than Phase I technology.

7. Other Information:

Cal-One has not received a Phase I request from either PSAP that we serve. The CHP representative we spoke with indicated that CHP would prefer to go straight to the Phase II solution. Cal-One has not received a Phase II request, however.

There may be a problem coming up with the cash required to implement Phase II. The solution we plan to implement will cost approximately $1,250,000 for two complete systems. This represents more than one year's net income for Cal-One on a very good year. A network-based solution would cost even more.

We spoke to the California DGS 911 division about the possibility of getting financial assistance from DGS. They seem willing to help, but they say there isn't enough money available. California is a large state with many wireless providers and a huge number of cell sites. We suggested that the 911 surcharge to all telecommunications customers be increased dramatically until this conversion has been accomplished. We also suggested that a gradual rollout of Phase II technology would help ease the cash flow problem, but this would require FCC cooperation with schedule slippage.

Summary

Our plans to implement 911 Phase II technology are in place. Only two problems that we are aware of threaten compliance with the FCC's proposed rollout schedule: (1) equipment availability and (2) cash availability. If the FCC can slip the due date for handset solutions until the equipment becomes available, it would also increase the likelihood that the cash will be available.

Thank you for your serious consideration of our concerns.

Jim Lowers

Jim Lowers
VP/Controller
530-467-6171